

CORRECTED VERSION

**(19) World Intellectual Property
Organization
International Bureau**



(43) International Publication Date
18 August 2005 (18.08.2005)

PCT

(10) International Publication Number
WO 2005/076393 A2

(51) International Patent Classification⁷: H01M 8/00

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(21) International Application Number:
PCT/JP2005/001877

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(22) International Filing Date: 2 February 2005 (02.02.2005)

(25) **Filing Language:** English

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(26) **Publication Language:** English

(30) Priority Data:
2004-033257 10 February 2004 (10.02.2004) JP

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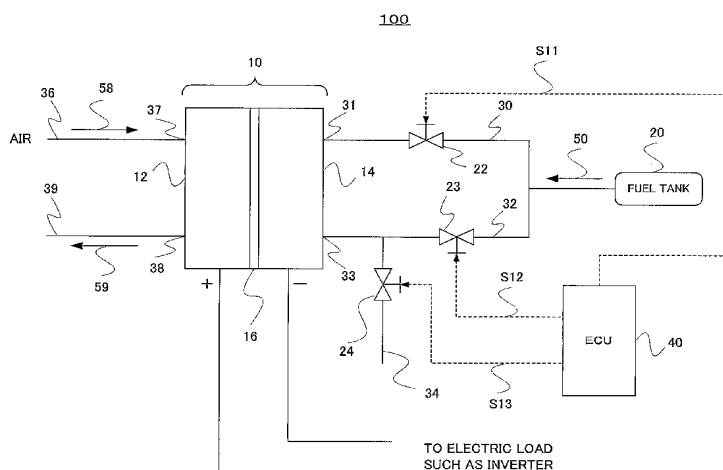
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(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,

[Continued on next page]

(54) Title: FUEL CELL SYSTEM



(S7) Abstract: A fuel cell system is loaded on a fuel cell automobile and the like. A fuel cell stack is constructed by an anode and a cathode, and an electric power is generated by supplying fuel gas (hydrogen) to the anode and supplying air to the cathode. The fuel cell system includes two supply passages for supplying the hydrogen to the anode. In addition, valves which control flow amounts of the hydrogen passing through the two supply passages are provided on the supply passages, respectively. Further, an exhaust passage which outputs exhaust gas from the anode is provided on the supply passage, and a valve is also provided on the exhaust passage. In the above fuel cell system, when the valve provided on the exhaust passage is closed, by controlling the valves provided on the supply passages, the flow amount ratios of the hydrogen passing through the two supply passages are varied in terms of time. Thereby, an extreme downstream position of the hydrogen in the anode can be varied. Therefore, impurities such as nitrogen in the fuel cell stack can be diffused. Thereby, a hydrogen purge amount for discharging the impurities can be reduced, and the efficiency of using fuel can be improved.

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ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- *without international search report and to be republished upon receipt of that report*

(48) Date of publication of this corrected version:

24 November 2005

(15) Information about Correction:

see PCT Gazette No. 47/2005 of 24 November 2005, Section II

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.